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[Continued on next page]

(54) Title: POLYPEPTIDE PARTICIPATING IN PYRIDOXINE BIOSYNTHESIS, A POLYNUCLEOTIDE CODING THE  
POLYPEPTIDE AND THOSE USES

At5g10410 -----MEG--TGVVAVYNGAITEAK-XSPFSVKVGLAQMLRGGVIMDVVNAEQARIAEE 52  
 At2g38230 -----MAG--TGVVAVYGEAGTETKQKSPFSVKVGLAQMLRGGVIMDVVNAEQARIAEE 53  
 At3g16050 MADQAMTDQDQGAUTLYSGTAITDAKXHPFSVKVGLAQMLRGGVIMDVVNAEQARIAEE 60  
 snz3 -----MS-----EFKVKTLGLAQMLKGGVIMDVVTPAQIAIAER 33  
 snz2 -----MS-----EFKVKTLGLAQMLKGGVIMDVVTPAQIAIAER 33  
 snz1 -----MTG-----EDFKIKSGLAQMLKGGVIMDVVTPAQIAIAEK 35

At5g10410 AGACAVMALERVFPADIRAQGGVARMSPDPOMIEIKNAVITIPVMKARIGHFVEAQILEAI 112  
 At2g38230 AGACAVMALERVFPADIRAQGGVARMSPDPOMIEIKNAVITIPVMKARIGHFVEAQILEAI 113  
 At3g16050 AGACSVIYSD---PVRSGGVRRMPDPVLIKEVRAVSPVMKARIGHFVEAQILEAI 116  
 snz3 AGACAVMALERIPADMRKSGGVCRMSDPRMIKEIMEAVSIPVMKARIGHFVEAQILEEL 93  
 snz2 AGACAVMALERIPADMRKSGGVCRMSDPRMIKEIMEAVSIPVMKARIGHFVEAQILEEL 95  
 snz1 SGACAVMALESIPADMRKSGGVCRMSDPRMIKEIMEAVSIPVMKARIGHFVEAQILEEL 95

At5g10410 GIDVIDESEVLTLADEDHINKHNFRIFFVCGCRNLGEALRRIREGAAMIRTKG-EAGTG 171  
 At2g38230 GVDYVDESEVLTLADEDHINKHNFRIFFVCGCRNLGEALRRIREGAAMIRTKG-EAGTG 172  
 At3g16050 AVDYIDSEIISVADDHFIKHNFRSPFICGCRDTGEALRRIREGAAMIRIQGDLTATG 176  
 snz3 QVDYIDSEVLTPADWTHIEKHNFKVPFVCGAKDLGEALRRIREGAAMIRTKG-EAGTG 152  
 snz2 QVDYIDSEVLTPADWTHIEKHNFKVPFVCGAKDLGEALRRIREGAAMIRTKG-EAGTG 152  
 snz1 EVDYIDSEVLTPADWTHIEKHNFKVPFVCGAKDLGEALRRIREGAAMIRTKG-EAGTG 154

At5g10410 NIEAVRHVRSVNGDIRVLRN--MDDDEVFTFAKKLAAPYDLVMQTKLGRPLPVVQFAAG 229  
 At2g38230 NVVEAVRHVRSVNGAIRLLRS--MDDDEVFTYAKKIAAPYDLVQTKELGRPLPVVQFAAG 230  
 At3g16050 NIAETVKNVRSVMGEVRLN--MDDDEVFTFAKKISAPYDLVQTKQMGVRPVVQFAAG 234  
 snz3 DVSEAVKHITIKAEIQYKKNLKTESDFAAKATELRVPVDDLKTTLSGKLPVNVFAAG 212  
 snz2 DVSEAVKHITIKAEIQYKKNLKTESDFAAKATELRVPVDDLKTTLSGKLPVNVFAAG 212  
 snz1 DVSEAVKHIRRITEIKACQQ-LKSEDDIAKVAEMRVPVSLKDVLEKGLPVNVFAAG 213

At5g10410 GVATPADAALLMQLGCDGVFVSGIFKSGDPARRARAIVQAVTHYSDEPMLVEVSCGLGE 289  
 At2g38230 GVATPADAALLMQLGCDGVFVSGIFKSGDPVRAKAIQVAVTNYRDAVLAEVSCGLGE 290  
 At3g16050 GITTTPADAALLMQLGCDGVFVSGIFKSGDPDPFKKLRSIVQAVQHYNDPHVLAEMSSGLEN 294  
 snz3 GVATPADAALLMQLGCEGVFVSGIFKSSDPEKLACAIVEATTHYDNPAKLLQVSSDLGD 272  
 snz2 GVATPADAALLMQLGCEGVFVSGIFKSSDPEKLACAIVEATTHYDNPAKLLQVSSDLGD 272  
 snz1 GVATPADAALLMQLGCDGVFVSGIFKSSNPVRLATAVVEATTHYDNPAKLLQVSSDLGE 273

At5g10410 AMVGINLNDKVERFANRSE----- 309  
 At2g38230 AMVGLNLD--KVERFASRSE----- 309  
 At3g16050 AMESLNVGRDRIODFGQGSV----- 314  
 snz3 LMGGISIQSINEAGGKNGARLSEIGW 298  
 snz2 LMGGISIQSINEAGGKNGARLSEIGW 298  
 snz1 LMGGVSIIESHAS--NGVRLSEIGW 297

(57) Abstract: The present invention  
discloses a polypeptide participating in  
pyridoxine biosynthesis, a polynucleotide  
coding the polypeptide and those uses.  
Particularly, this present invention discloses  
a polypeptide participating in pyridoxine  
biosynthesis, a polynucleotide coding the  
polypeptide, a method for inducing plant  
growth inhibition, a method for screening a  
compound inducing plant growth inhibition,  
and composition for inducing plant growth  
inhibition which comprises the compound  
obtained by the screening method.

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